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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/645,431

08/21/2003

Richard Martin Jacobson

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EXAMINER

QAZI, SABIHA NAIM

ART UNIT

PAPER NUMBER

1612

MAIL DATE

DELIVERY MODE

08/07/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/645,431	<b>Applicant(s)</b> JACOBSON ET AL.	
	<b>Examiner</b> Sabiha Qazi	<b>Art Unit</b> 1612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 2-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 2-10 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**Final Office Action**

Claims 1-10 are pending. Claims 2-10 are withdrawn from consideration as non-elected invention. No claim is allowed at this time. Amendments are entered.

**Summary of this Office Action dated August 2<sup>nd</sup>, 2008**

1. Information Disclosure Statement
2. Copending Applications
3. Specification
4. 35 USC § 102(b) Rejection
5. 112 (1) New Matter Rejection
6. 35 USC § 103(a) Rejection
7. Double Patenting --- First Rejection (KOSTANSEK)
8. Double Patenting --- Second Rejection (LAMOLA et al)
9. Conclusion
10. Communication

### **Information Disclosure Statement**

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### **Copending Applications**

Applicants must bring to the attention of the examiner, or other Office official involved with the examination of a particular application, information within their knowledge as to other copending United States applications, which are "material to patentability" of the application in question. MPEP 2001.06(b). See *Dayco Products Inc. v. Total Containment Inc.*, 66 USPQ2d 1801 (CA FC 2003).

### **Specification**

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

**Claim Rejections - 35 USC § 112—New Matter**

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Amendment in claim 1 in the definition of (a) is considered new matter. Applicant is kindly requested to show the support in the specification.

See *Genetech*, 108 F 3d 1361, 1365 (Fed. Cir. at 1366, 78, 1999).

**35 USC § 102(b) Rejection**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless –*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 are rejected under 35 U.S.C. 102(b) as being anticipated by KOSTANSEK<sup>1</sup>. KOSTANSEK discloses Benzene, 1-Chloro-4-cycloprop-1-enylmethyl<sup>2</sup>. This compound is the elected species.

### **Double Patenting --- First Rejection (KOSTANSEK)**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed.

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<sup>1</sup> EDWARD CHARLES KOSTANSEK. United States Patent No. 6,548,448 B2. See the entire document, especially Compound 1, which is found in Example 1 in lines 1-48 of col. 12.

Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of KOSTANSEK<sup>3</sup>. Although the conflicting claims are not identical, they are not patentably distinct from each other

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<sup>2</sup> This compound can also be found in HCAPLUS, Registry Number 454251-27-5. This is enclosed for the Applicants' convenience.

<sup>3</sup> EDWARD CHARLES KOSTANSEK. United States Patent No. 6,548,448 B2. See the entire document, especially Compound 1, which is found in Example 1 in lines 1-48 of col. 12, and Table 1 in col. 22.

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because the instant compounds are taught by the prior art. See the cited references in the footnote.

KOSTANSEK has a common assignee with the instant application.

Substituent Z can be a group G, wherein G is an unsubstituted or substituted; unsaturated, partially saturated, or saturated, monocyclic, bicyclic, tricyclic, or fused; 4 to 14 membered carbocyclic or heterocyclic ring system wherein; 1) when the ring system contains a 4 membered heterocyclic ring, the heterocyclic ring contains 1 heteroatom; when the ring system contains a 5, or more: membered heterocyclic ring or a polycyclic heterocyclic ring, the heterocyclic or polycyclic heterocyclic ring contains from 1 to 4 heteroatoms; each heteroatom is independently selected from N, O, and S; the number of substituents is from 0 to 5 and each substituent is independently selected from X.

### **Double Patenting --- Second Rejection (LAMOLA et al)**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the



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conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 7-10 of LAMOLA et al<sup>4</sup>. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant compounds are taught by the prior art. See the cited references in the footnote.

LAMOLA et al has a common assignee with the instant application.

### **Response to Remarks**

Applicant's arguments were fully considered but are not found persuasive.

- There is no priority data in the present application as has been mentioned by Applicant. Applicant is requested to correct the data, Examiner will withdrawn the 102 (b) rejection on the basis of priority.
- Previous new matter rejection is withdrawn because claims are amended.
- Arguments regarding DP over KOSTANSEK and LAMOLA have been considered. DP rejection is maintained because Applicant cannot get two patents containing same invention or overlapping invention no matter what is the filing date. The filing date argument is not persuasive. Only one

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<sup>4</sup> ANGELO ANTHONY LAMOLA et al. United States Patent No. 6,770,600 B1. See the entire document, especially lines 24-67 in col. 4, lines 1-67 in col. 5, lines 1-2 in col. 6, examples, and claims.

patent is issued for one invention. If there is any overlapping as has been accepted by Applicant than terminal disclaimer must be filed.

- Applicant is also informed that the database search on STN picked more than 800 references as a result of the search on claim 1. Claims are very broad and it not possible to search completely the claimed subject matter as in claim 1. Applicant may consider limiting the claims to reasonable genus.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 is rejected under 35 U.S.C. 103 (a) as being unpatentable over SISLER, E, US Patent 6,194,350, DALY et al., US Patent 6,017,849, MINKIN (1997, IDS Reference). All the reference cited teach cyclopropene derivatives and methods of blocking ethylene receptors in plants which embraces presently claimed invention.

SISLER teaches methods of inhibiting an ethylene response in a plant are disclosed herein. According to the present invention, one such method comprises applying to the plant an effective ethylene response-inhibiting

amount of a cyclopropene derivative or a composition thereof described further in detail herein. Long-chain cyclopropene derivatives are particularly preferred as described below.

The reference teaches a method of blocking ethylene receptors in plants by applying to the plants an effective ethylene receptor-blocking amount of a cyclopropene derivative or a composition thereof.

Also disclosed is a method of inhibiting abscission in a plant, comprising applying to the plant an effective abscission-inhibiting amount of a cyclopropene derivative or a composition thereof. The reference further teaches a method of prolonging the life of a cut flower, comprising applying to the cut flower an effective life-prolonging amount of a cyclopropene derivative or a composition thereof.

The reference teaches that the methods may be carried out in a number of suitable manner, such as by contacting the plant with a cyclopropene derivative or a composition thereof, whether in solid, liquid, or gaseous form, or by introducing the plant or cut flower into an atmosphere infused with the cyclopropene derivative or a composition thereof. These and other suitable methods of application are discussed in detail below.

The reference also teaches the use of a cyclopropene derivative as described herein for the preparation of an agricultural composition for carrying out any of the methods described above. See the entire document especially lines 22-59, col. 2, Table A in column 6, Table 1 and Table 2 in column 7.

DALY, James teaches that cyclopropene and its derivatives are made by reacting, in an inert environment, a metal amide salt, such as lithium amide salt, sodium amide salt, potassium amide salt, lithium diisopropylamide salt, sodium diisopropylamide salt or other metal amide salts, and a halogenated carbene, such as 3-chloro-3-methyl-2-methylpropene, 3-bromo-3-methyl-2-methylpropene, 3-chloro-2-methylpropene, 3-bromo-2-methylpropene or some other halogenated carbene. Methylcyclopropene is made under the same conditions with the same metal amide salts discussed above by reacting them with a halogenated methylpropene. The preferred halogenated methyl propenes are 3-chloro-2-methylpropene and 3-bromo-2-methylpropene. These halogenated methyl propenes lead to a high purity product for the intended use and are readily available.

The invention teaches the regulation of plant physiology, in particular to methods for inhibiting the ethylene response in plants or plant products, and has

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three embodiments. The first embodiment relates to methods of minimizing impurities capable of reversibly binding to plant ethylene receptor sites during the synthesis of cyclopropene and its derivatives such as methylcyclopropene, thereby avoiding the negative effects these impurities have on plants treated with cyclopropene and its derivatives. The second embodiment relates to complexes formed from molecular encapsulation agents such as cyclodextrin, and cyclopropene and its derivatives such as methylcyclopropene, in addition to cyclopentadiene and diazocyclopentadiene and their derivatives, thereby providing a convenient means for storing and transporting these compounds capable of inhibiting the ethylene response in plants, which are reactive gases and highly unstable because of oxidation and other potential reactions. The third embodiment relates to convenient methods of delivering to plants these compounds capable of inhibiting the ethylene response in the plants in order to extend their shelf life.

MINKIN teaches synthesis of cyclopropene compounds, see the entire document especially compound 2b in scheme 1 on page 239, compound 2b and scheme 2 on page 247 compounds 13a, 13b, 13c and 13d.

Instant claims differ from the reference in generic scope. The compounds are generically taught by the prior art.

The instant claimed cyclopropene compounds would have been obvious because one skilled in the art would have been motivated to prepare compounds embraced by the genus of the above cited references with the expectation of obtaining additional beneficial compounds. The instant claimed compounds would have been suggested to one skilled in the art because motivation is provided for these compounds capable of **inhibiting the ethylene response** in the plants in order to **extend their shelf life**. One having ordinary skill in the art would have been motivated to select the claimed compounds from the genus in the reference since such compounds would have been suggested by the reference as a whole.

It has been decided by the courts that a prior art disclosed genus of useful compounds is sufficient to render prima facie obvious a species falling within the genus. In re Susi, 440 F.2d 442, 445, 169 USPQ 423, 425 (CCPA 1971), followed by the Federal Circuit in Merck & Co. V. Biocraft Laboratories, 874 F.2d 804, 10 USPQ 2d 1843, 1846 (Fed. Cir. 1989).

In the light of the forgoing discussion, the Examiner's ultimate legal conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a).

### **Conclusion**



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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### **Communication**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sabiha Qazi whose telephone number is (571) 272-0622. The examiner can normally be reached on any business day except Wednesday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Krass Frederick can be reached on (571) 272-0580. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sabiha Qazi/  
Primary Examiner, Art Unit 1612

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